

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) In a wireless communication system with an air interface, a method comprising the step of defining a plurality of bursts,
wherein each burst comprises a field embedded within a fixed location in the burst;
wherein the field is one of a synchronization field and a signaling field;
wherein the field is the synchronization field in a first burst of the plurality of bursts in a superframe and the field is the signaling field in a remainder of the plurality of bursts in the superframe;
wherein, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the signaling field, and defining a position of at least one subsequent burst comprising the synchronization field; and
wherein, when the field is a signaling field, defining an indicator in a framing portion of the signaling field to identify that payload in the burst is one of a) begins a new packet, b) completes a packet, and c) does not begin or complete a packet.
2. (original) The method of claim 1 wherein the signaling field carries non-voice information.
3. (original) The method of claim 1 wherein each burst comprising the signaling field comprises one of a link control signaling, and an encryption parameter.
4. (previously presented) The method of claim 1 wherein at least one burst comprising the signaling field carries link control signaling.

5. (previously presented) The method of claim 1 wherein an encryption parameter is carried in one of the bursts comprising the signaling field, and wherein a receiving device of the plurality of bursts knows a location of the burst carrying the encryption parameter *a priori*.
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (previously presented) The method of claim 4 wherein the link control signaling is formed into a matrix, having rows and columns, prior to forward error correction encoding, wherein the rows of the matrix are encoded with a block code, and wherein the columns of the matrix are encoded with a parity checksum.
10. (original) The method of claim 9 wherein the block code is a Hamming(16, 11) code.
11. (cancelled)
12. (cancelled)

13. (previously presented) In a wireless communication system with an air interface, a method comprising the steps of:

receiving a burst comprising payload and a field embedded within the burst;

determining whether the field is one of a synchronization field and a signaling field

wherein the synchronization field comprises a synchronization pattern; and

when the field is determined to be the synchronization field, identifying a position of at least one subsequent burst comprising the signaling field, and identifying at least one subsequent burst comprising the synchronization field;

comparing the received synchronization pattern against a first known synchronization pattern and a second known synchronization pattern;

if the received synchronization pattern matches the first known synchronization pattern, processing the payload as voice; and

if the received synchronization pattern matches the second known synchronization pattern, processing the payload as non-voice.

14. (original) The method of claim 13 wherein the first known synchronization pattern and the second known synchronization pattern are complements of each other.

15. (previously presented) In a wireless communication system with an air interface, a method comprising the steps of:

receiving a burst comprising payload and a field embedded within the burst;

determining whether the field is one of a synchronization field and a signaling field wherein the synchronization field comprises a synchronization pattern;

when the field is determined to be the synchronization field, identifying a position of at least one subsequent burst comprising the signaling field, and identifying at least one subsequent burst comprising the synchronization field;

selecting a target synchronization pattern dependent on an operating mode, wherein the target synchronization pattern is at least one of a first known synchronization pattern and a second known synchronization pattern;

comparing the received synchronization pattern against the target synchronization pattern; and

if the received synchronization pattern matches the target synchronization pattern, processing the payload; otherwise, discarding the burst.

16. (previously presented) The method of claim 15 wherein the operating mode is based on the expectation of one of an inbound channel, outbound channel, forward channel, reverse channel, subscriber transmission, base station transmission, repeated transmission, and non-repeated transmission.

17. (previously presented) In a wireless communication system with an air interface, a method comprising the steps of:

receiving a burst comprising payload and a field embedded within the burst;

determining whether the field is one of a synchronization field and a signaling field wherein the synchronization field comprises a synchronization pattern; and

when the field is determined to be the synchronization field, identifying a position of at least one subsequent burst comprising the signaling field, and identifying at least one subsequent burst comprising the synchronization field;

comparing the received synchronization pattern against a first known synchronization pattern and a second known synchronization pattern, wherein the first and second known synchronization patterns have a common length;

if the received synchronization pattern matches the first known synchronization pattern, selecting a first operating mode; and

if the received synchronization pattern matches the second known synchronization pattern, selecting a second operating mode.

18. (previously presented) The method of claim 17 wherein the first known synchronization pattern is defined by a synchronization pattern defined in ANSI.102.BAAA (2003).

19. (previously presented) The method of claim 13 wherein at least one burst comprising the signaling field carries link control signaling and framing information for the link control signaling.

20. (original) The method of claim 19 wherein an encryption parameter is carried in one of the bursts comprising the signaling field, and wherein a receiving device of the plurality of bursts knows a location of the burst carrying the encryption parameter *a priori*.

21. (previously presented) The method of claim 13 wherein an encryption parameter is carried in one of the bursts comprising the signaling field, and wherein a receiving device of the plurality of bursts knows a location of the burst carrying the encryption parameter *a priori*.

22. (previously presented) The method of claim 13 further comprising the steps of:
when a burst comprising the synchronization field is expected to be received,
comparing a pattern in the synchronization_field against a known synchronization pattern,
and
if the pattern in the synchronization field matches the known synchronization pattern, setting at least one of a set of operating parameters and an operating mode based on the known synchronization pattern.

23. (previously presented) In a wireless communication system with an air interface, a method comprising the step of defining a plurality of bursts,

- wherein each burst comprises a field embedded within a fixed location in the burst;
- wherein the field is one of a synchronization field and a signaling field;
- wherein the field is the synchronization field in a first burst of the plurality of bursts in a superframe and the field is the signaling field in a remainder of the plurality of bursts in the superframe;
- wherein, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the signaling field, and defining a position of at least one subsequent burst comprising the synchronization field; and
- wherein, when the field is a signaling field, defining an indicator in a framing portion of the signaling field to identify that payload in the burst is one of a) begins a new packet, b) completes a packet, c) does not begin or complete a packet and d) identifies a second type of information.

24. (previously presented) In a wireless communication system with an air interface a method comprising the step of defining a plurality of bursts,
wherein each burst comprises a field embedded within a fixed location in the burst;
and
wherein the field is one of a synchronization field and a signaling field; and
wherein, when the field is a synchronization field, defining a position of at least one subsequent burst comprising the signaling field, and defining a position of at least one subsequent burst comprising the synchronization field;
wherein, when the field is a signaling field, defining an indicator to identify that payload in the burst either a) begins a new packet, completes a packet, or signals a segment of a packet that does not begin or complete a packet or b) identifies a second type of information.